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ABSTRACT

A series of studies were conducted at San Jose City College (SJCC) in San Jose, California, to evaluate the persistence of three groups of new mathematics students entering Arithmetic, Algebra, and Intermediate Algebra courses in the fall of 1988. In particular, the studies examined students' persistence from the initial mathematics course, Arithmetic, through Transfer Level Math (TLM), covering the four academic years from fall 1988 through spring 1992. In fall 1988, a total of 250 new students were enrolled in Arithmetic, 135 in Algebra, and 55 in Intermediate Algebra. Findings from the studies include the following: (1) for students entering Arithmetic, 3% progressed through TLM between fall 1988 and spring 1992, 16% completed Algebra, and 6% persisted through Intermediate Algebra; (2) Asian students were the only ethnic group in Arithmetic with more than 5% persisting through TLM; (3) among Algebra students, 11% progressed through TLM between fall 1988 and spring 1992, while 31% successfully completed Intermediate Algebra; (4) among Algebra students, Blacks had the highest rates of persistence through TLM, while only 8% of female students persisted through TLM; (5) among Intermediate Algebra students, 35% persisted through TLM between fall 1988 and spring 1992, while 58% successfully completed Intermediate Algebra; (6) among the 9 white students in Intermediate Algebra in 1988, none persisted through TLM within four academic years; and (7) for the three groups, the studies indicated that the college is not meeting its goals in terms of transferring more underprepared students and protected ethnic groups. Detailed data tables are included. (PAA)

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SAN JOSE CITY COLLEGE

PERSISTENCE OF NEW COLLEGE STUDENTS
from
Arithmetic, Algebra and Int Algebra
through
TRANSFER LEVEL MATH

FALL 1988 - SPRING 1992

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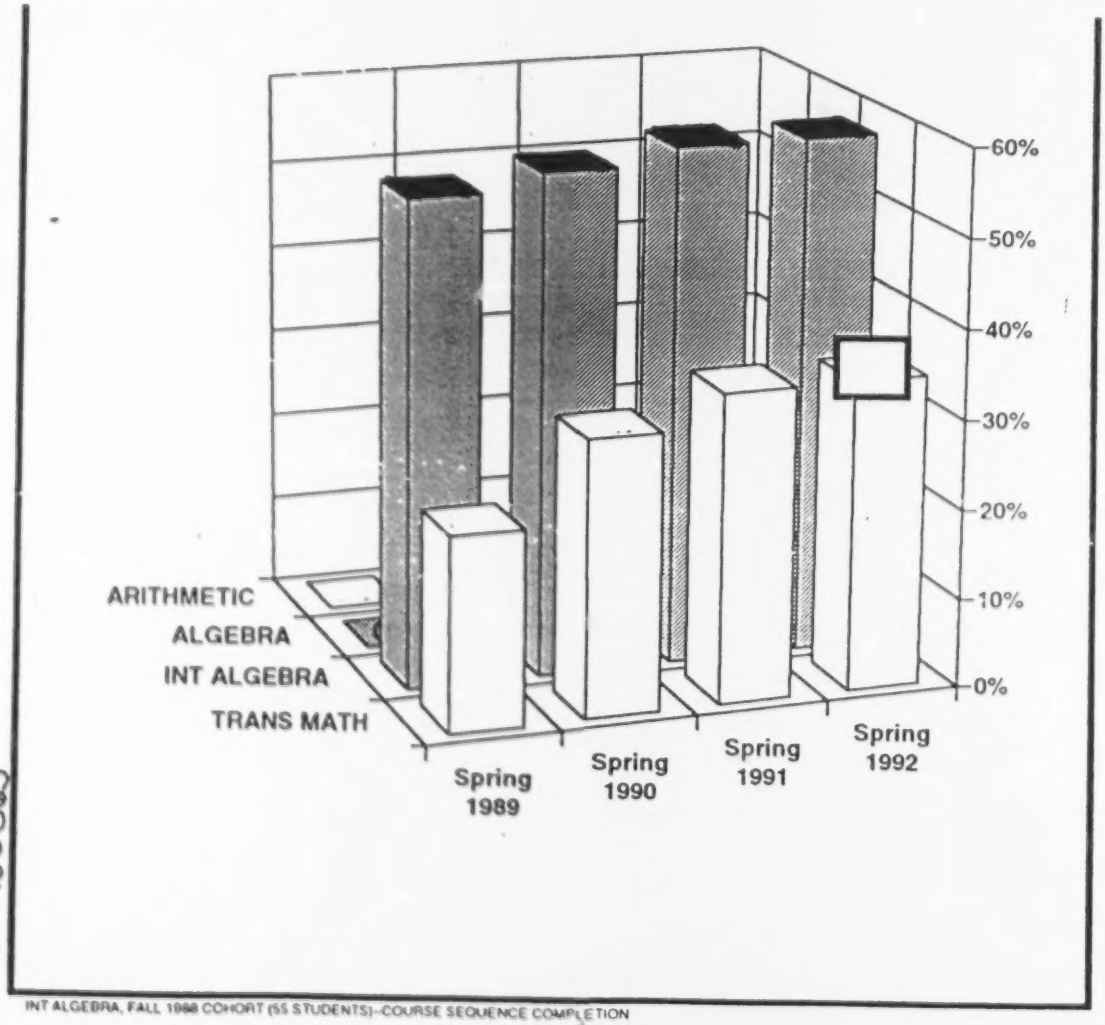

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INT ALGEBRA, FALL 1988 COHORT (55 STUDENTS)--COURSE SEQUENCE COMPLETION

Research Reports #260, #295 and #297

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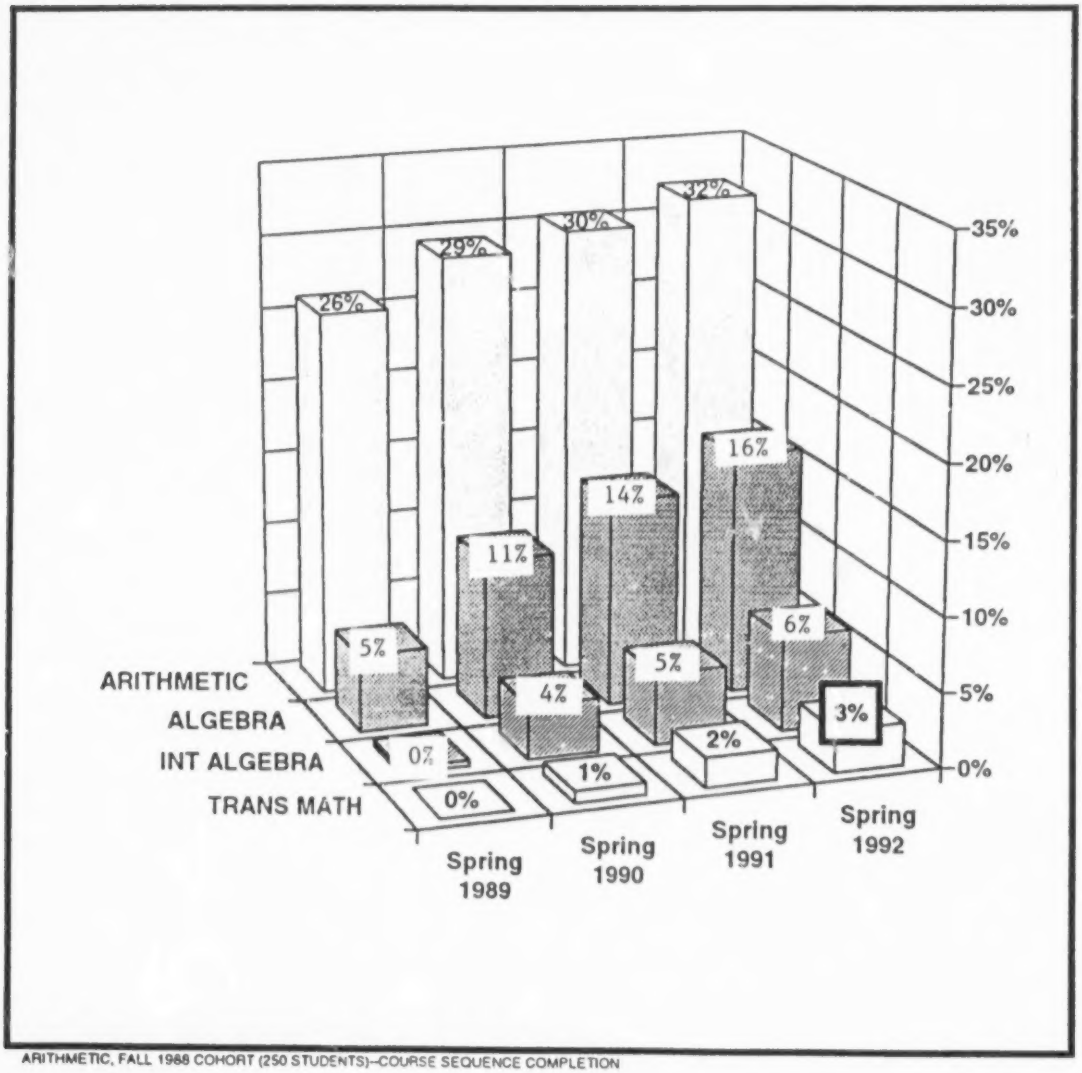
SAN JOSE CITY COLLEGE

PERSISTENCE OF NEW COLLEGE STUDENTS
from
ARITHMETIC
through
TRANSFER LEVEL MATH

FALL 1988 - SPRING 1992



ARITHMETIC, FALL 1988 COHORT (250 STUDENTS)--COURSE SEQUENCE COMPLETION

Background Information

Abbreviations

Ethnic Groups

IND = American Indian/Alaskan native
FIL = Filipino
BLK = Black
MID = Middle Eastern
PAC = Pacific Islander (Guam, Samoa, etc.)
ASN = Asian (Chinese, Japanese, Korean, Vietnamese, etc.)
HSP = Chicano, Latino, Mexican, Hispanic
WHT = White, non-Hispanic
OTH = Other non-White
DCL = Decline to state
UNK = Unknown

Benchmark Ethnic Groups

ASN = ASN + FIL + PAC
BLK = BLK
HSP = HSP
WHT = WHT
OTH = OTH + IND + MID

Note: DCL & UNK are not represented in the benchmark figures.

Other Abbreviations & Definitions

SJCC = San Jose City College
EVC = Evergreen Valley College
ARITHMETIC = Mathematics Level 1: Achieved by successfully completing three units of MATH 310 (Arithmetic) or equivalent course or appropriate test score
ALG = Mathematics Level 2: Achieved by successfully completing one of the following MATH classes: 11A, 11R or 12 (Algebra)
INT ALG = Mathematics Level 3: Achieved by successfully completing MATH 13 (Intermediate Algebra)
TRANS MATH = Transfer Level Math: Achieved by successfully completing one of the following MATH classes, designated as "B4" in the District Master Course Schedule (accepted for transfer by CSU): Math 21, 22, 25, 51, 52, 55, 60, 61, 62, 63, 70, 71, 72, 73, 78, 79, 81, 82
COMPETENCY = A, B, C, or CR grade in course or equivalent course
PERSISTENCE (PERS) = Successfully continuing to the next level after gaining competency in the previous level

Appendices

Detailed appendices are available upon request from the office of Academic Standards.

Funding

The prototype and template for this report were developed using Title III funds.

Project Author

Dr. Jon Kangas

Data Collection

Jennifer Drino
Tony Ma

Prototype & Template Creation, Document Preparation

Katheen Budros, Program Assistant

DATA HIGHLIGHTS

- Only 7 students, or 3%, of the 250 new students beginning in Arithmetic (Math 310) in Fall 1988 progressed through Transfer Level Math between Fall 1988 and Spring 1992.

- 32% of these 250 students beginning in Math 310 achieved competency in Math 310 (Math Level 1) within four academic years, 16% reached competency in Algebra (Math Level 2), and 6% achieved competency in Intermediate Algebra (Math Level 3).

- Asian was the only ethnic group with more than 5% of its members successfully persisting through Transfer Level Math.

- Only 2 Asian males, 1 Black male, 1 Hispanic male and 1 female, 1 White female, and 1 Other female started in Arithmetic and continued through Transfer Level Math within four academic years.

- No Asian or Black females and no Other or White males who started in Arithmetic completed Transfer Level Math within four academic years.

- 89% of the original group of 250 was non-White.

- Of the 250 students beginning in Math 310, Hispanic (27%) and Other (35%) comprised the largest ethnic groups. White, at 11%, comprised the smallest.

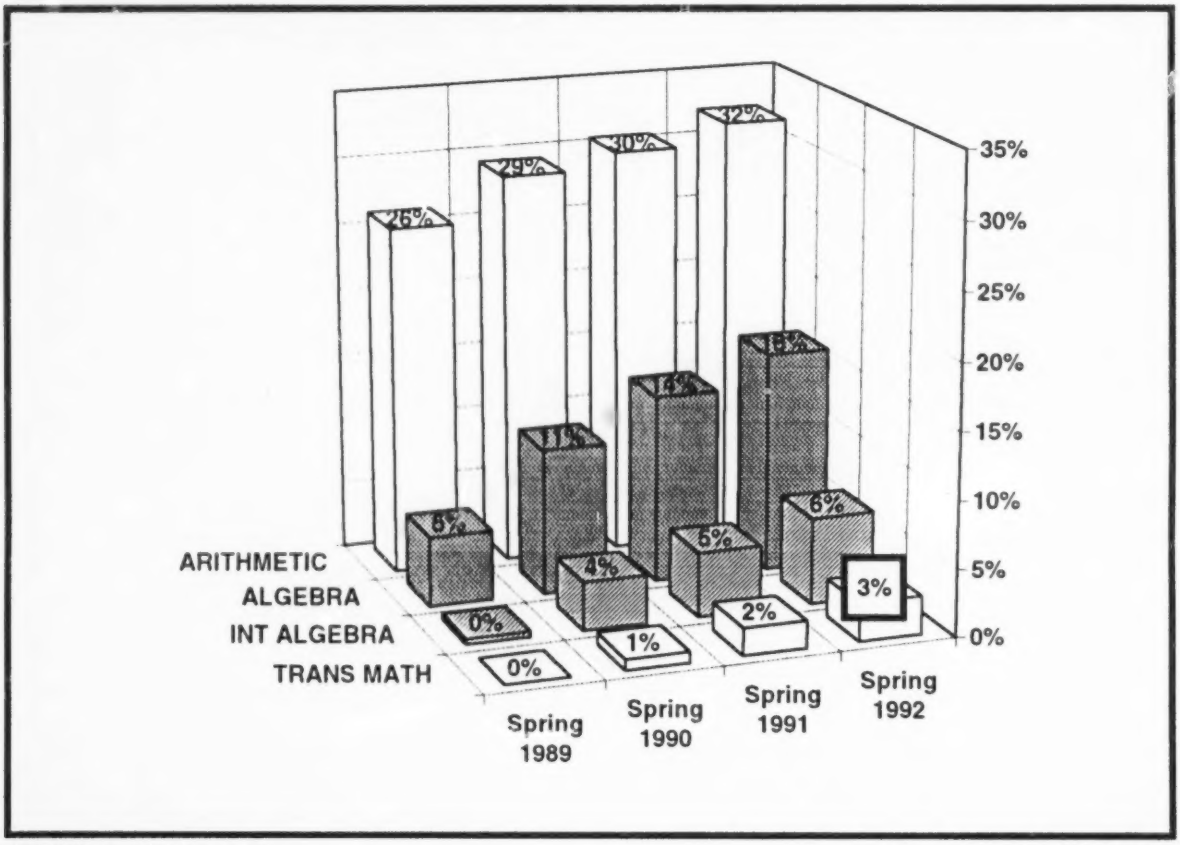
COMMENT: 89% of the Math 310 students were non-White. If one of the college's goals is to transfer more underprepared students and protected ethnic groups, this goal is not being met for the large percentage of students entering at the Arithmetic level.

RECOMMENDATION: It is recommended that an individual educational plan be developed for students at the Math 310 level using the expertise of as many relevant professionals as possible, e.g., career specialist, learning disabilities specialist, job developer, social worker, counselor, etc. Packaging this in a guidance class could be a practical approach.

Question: **What percentage of new college students who started in ARITHMETIC at SJCC in FALL 1988 persisted through TRANSFER LEVEL MATH within four academic years?**

Cumulative Persistence from ARITHMETIC through TRANSFER LEVEL MATH

		ARITHMETIC	ALGEBRA	INT ALGEBRA	TRANS MATH	
	Spring 1989	26%	5%	0%	0%	
	Spring 1990	29%	11%	4%	1%	
	Spring 1991	30%	14%	5%	2%	
	Spring 1992	32%	16%	6%	3%	



ARITHMETIC, FALL 1988 Cohort = 250

Low numbers necessitate caution in interpreting data.

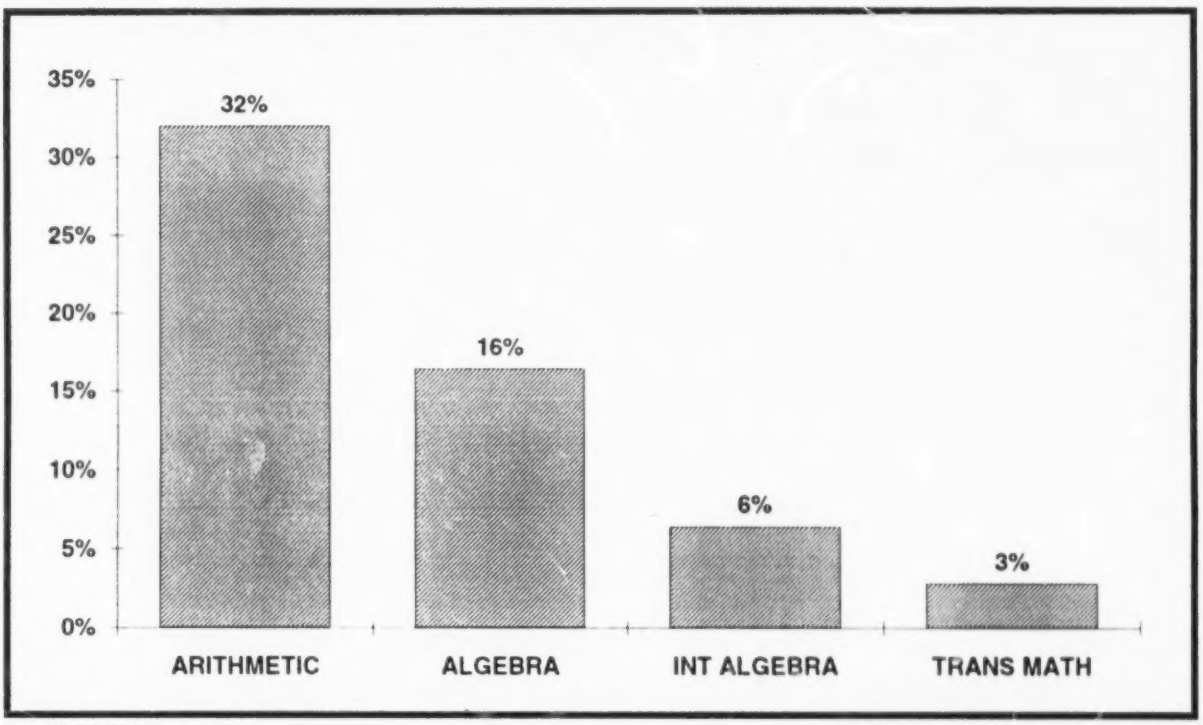
Answer: **3%** of the original FALL 1988 group persisted through TRANSFER LEVEL MATH within four academic years.

Question: **What are the cumulative ARITHMETIC and higher level MATHEMATICS competency rates over four academic years of new college students who started in ARITHMETIC at SJCC in FALL 1988?**

Cumulative Percentage by Semester

	FALL 1988	F88	S89	Su89	F89	S90	Su90	F90	S91	Su91	F91	S92
	Cohort	%	%	%	%	%	%	%	%	%	%	%
ARITHMETIC	250	24%	26%	26%	29%	29%	29%	30%	30%	30%	31%	32%
ALGEBRA		0%	5%	6%	9%	11%	10%	13%	14%	14%	16%	16%
INT ALGEBRA		0%	0%	0%	3%	4%	4%	4%	5%	5%	6%	6%
TRANS MATH		0%	0%	0%	0%	1%	1%	2%	2%	2%	3%	3%

CUMULATIVE COMPETENCY RATES FOR ARITHMETIC AND HIGHER MATH AFTER FOUR ACADEMIC YEARS (Spring 1992)



ARITHMETIC, FALL 1988 Cohort = 250

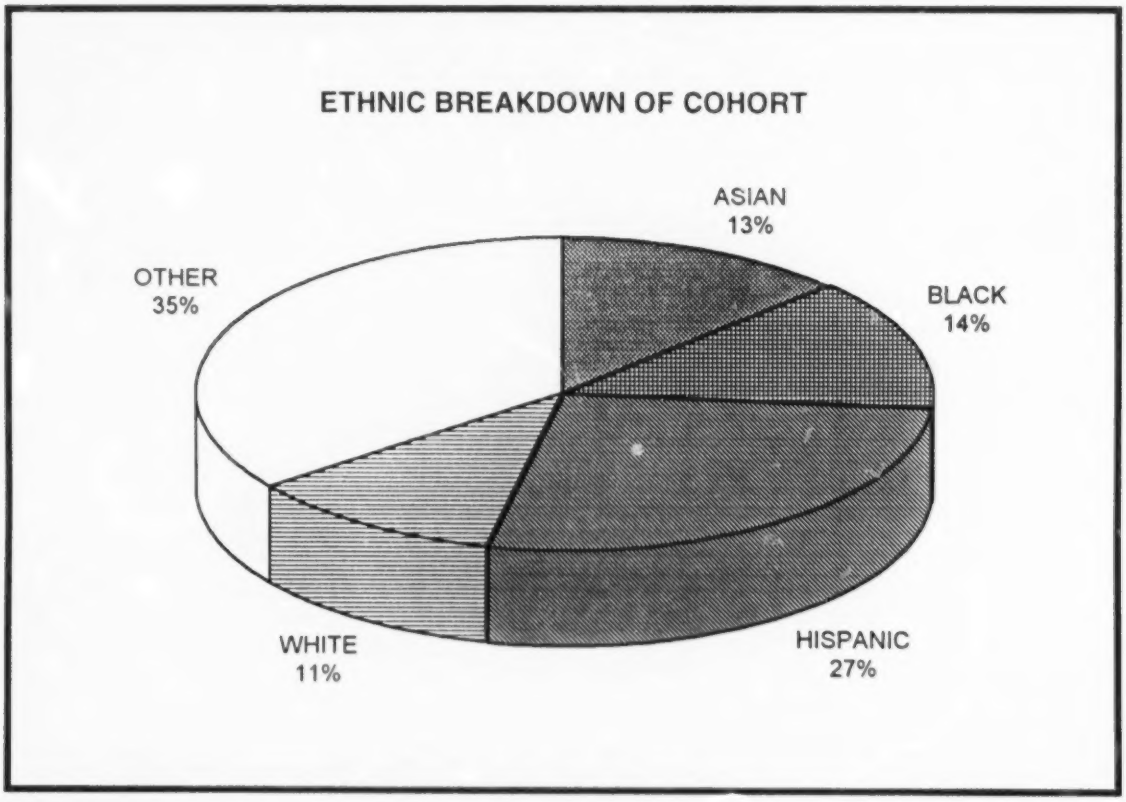
Low numbers necessitate caution in interpreting data.

Answer: After four academic years, the cumulative competency rates for new college students who began in FALL 1988 in ARITHMETIC were as follows:

ARITHMETIC	32%
ALGEBRA	16%
INT ALGEBRA	6%
TRANSFER LEVEL MATH	3%

QUESTION: **What was the benchmark ethnic breakdown of new college students who started in ARITHMETIC at SJCC in FALL 1988?**

FALL 1988 COHORT		
GROUP	#	%
ASIAN	32	13%
BLACK	34	14%
HISPANIC	68	27%
WHITE	28	11%
OTHER	88	35%
TOTAL	250	100%



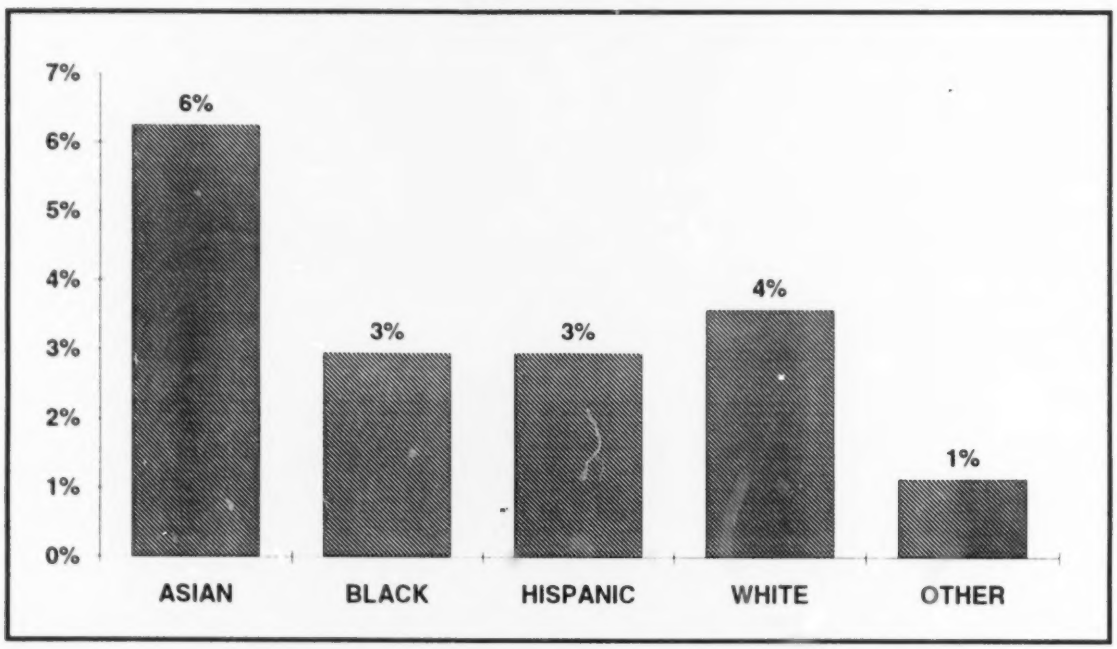
ANSWER: Proportionately largest student group(s): OTHER at 35%

Proportionately smallest student group(s): WHITE at 11%

QUESTION: **What number and percentage of new college students, by ethnicity, who started in ARITHMETIC at SJCC in FALL 1988 persisted through TRANSFER LEVEL MATH within four academic years?**

PERSISTENCE OF NEW COLLEGE STUDENTS THROUGH TRANSFER LEVEL MATH
NUMBER AND PERCENT BY ETHNICITY
FALL 1988 - SPRING 1992

	Fall 1988 Cohort	S92 # Pers	S92 % Pers
ASIAN	32	2	6%
BLACK	34	1	3%
HISPANIC	68	2	3%
WHITE	28	1	4%
OTHER	88	1	1%
TOTAL	250	7	3%



ANSWER:

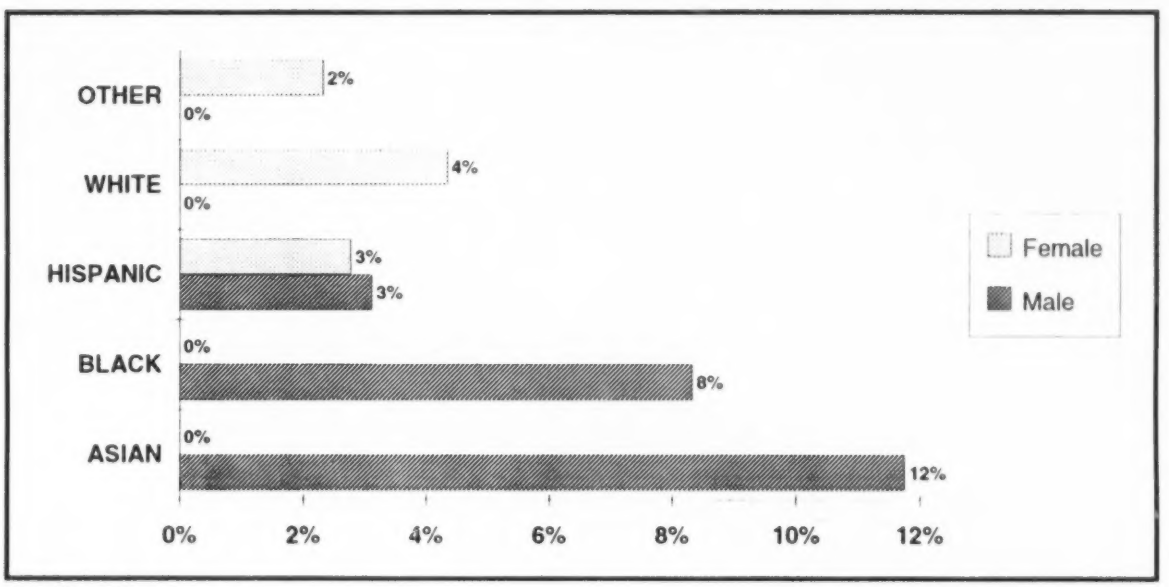
Group(s) with HIGHEST persistence rate: ASIAN at 6%

Group(s) with LOWEST persistence rate: OTHER at 1%

QUESTION: **What number and percentage of new college students, by ethnicity and gender, who started in ARITHMETIC at SJCC in FALL 1988 persisted through TRANSFER LEVEL MATH within four academic years?**

PERSISTENCE OF NEW COLLEGE STUDENTS FROM ARITHMETIC THROUGH TRANSFER LEVEL MATH
NUMBER AND PERCENT BY ETHNICITY AND GENDER
FALL 1988 - SPRING 1992

	Fall 1988 Cohort	S92 # Pers	S92 % Pers	Fall 1988 Cohort	S92 # Pers	S92 % Pers
	Male	Male	Male	Female	Female	Female
ASIAN	17	2	12%	15	0	0%
BLACK	12	1	8%	22	0	0%
HISPANIC	32	1	3%	36	1	3%
WHITE	5	0	0%	23	1	4%
OTHER	45	0	0%	43	1	2%
TOTAL	111	4	4%	139	3	2%



ARITHMETIC, FALL 1988 Cohort = 250

Low numbers may necessitate cautionary interpretation of data

ANSWER:

HIGHEST RANKING GROUPS:

MALE

ASIAN at 12%

FEMALE

WHITE at 4%

LOWEST RANKING GROUPS:

MALE

WHITE at 0%
OTHER at 0%

FEMALE

ASIAN at 0%
BLACK at 0%

San Jose/Evergreen Community College District Longitudinal Tracking System

SAN JOSE CITY COLLEGE

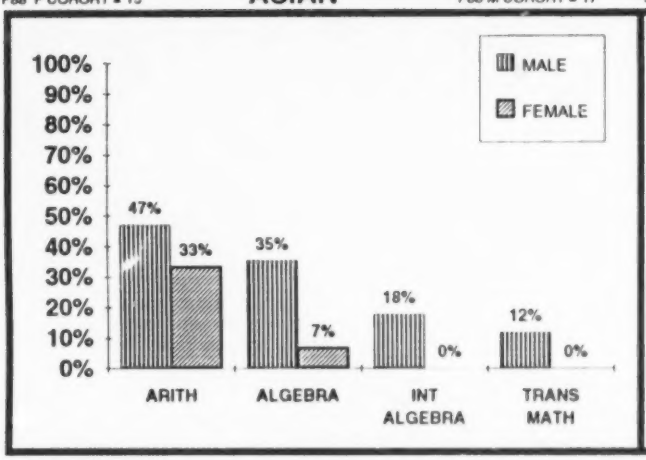
PERSISTENCE OF NEW COLLEGE STUDENTS

Students with no previous college experience who STARTED IN ARITHMETIC FALL 1988

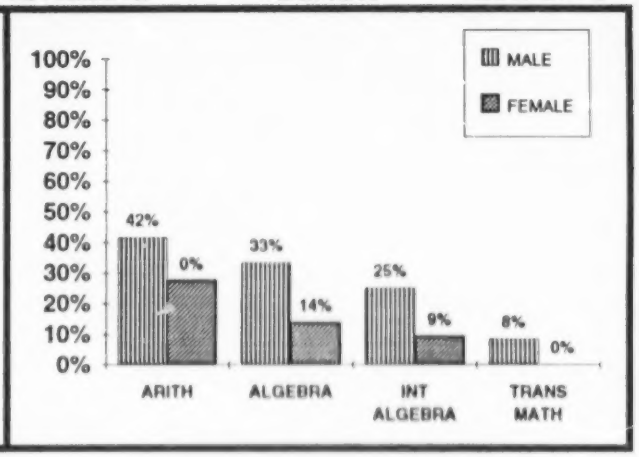
CUMULATIVE 4TH SEMESTER DATA (Spring 1992)

BY BENCHMARK ETHNICTY AND GENDER

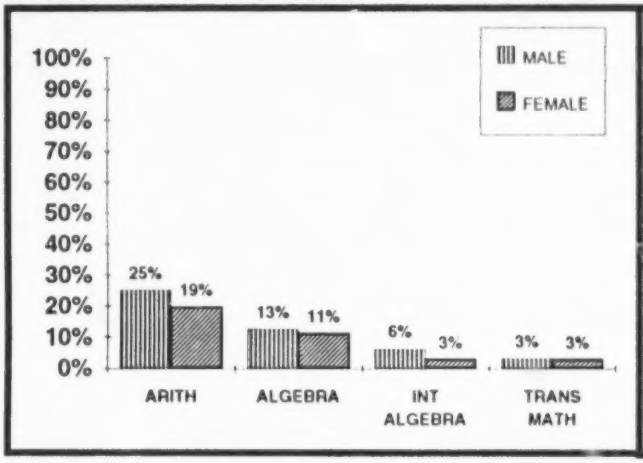
F88 F COHORT = 15 **ASIAN** F88 M COHORT = 17



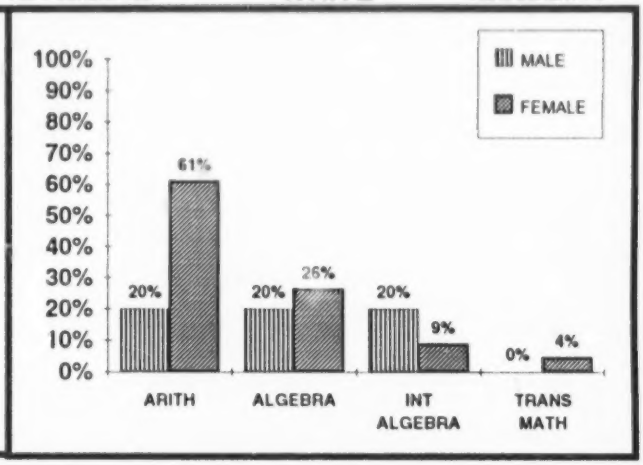
F88 F COHORT = 22 **BLACK** F88 M COHORT = 12



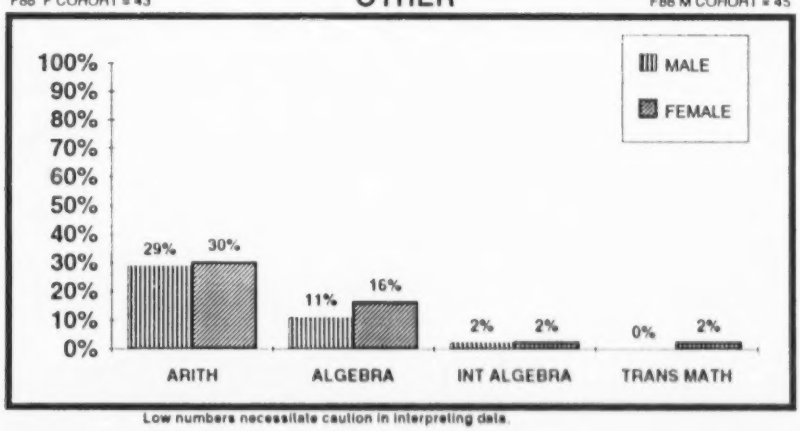
F88 F COHORT = 36 **HISPANIC** F88 M COHORT = 32



F88 F COHORT = 23 **WHITE** F88 M COHORT = 5



F88 F COHORT = 43 **OTHER** F88 M COHORT = 45



Low numbers necessitate caution in interpreting data.

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SAN JOSE CITY COLLEGE

PERSISTENCE OF NEW COLLEGE STUDENTS

Students with no previous college experience who STARTED IN ARITHMETIC FALL 1988

from
ARITHMETIC
through
TRANSFER LEVEL MATH

SORTED FROM HIGH TO LOW

CUMULATIVE NUMBER AND PERCENT*, 4TH SEMESTER DATA

BY ETHNICITY AND GENDER

ARITHMETIC, FALL 1988 Cohort = 250

Low numbers necessitate caution in interpreting data.

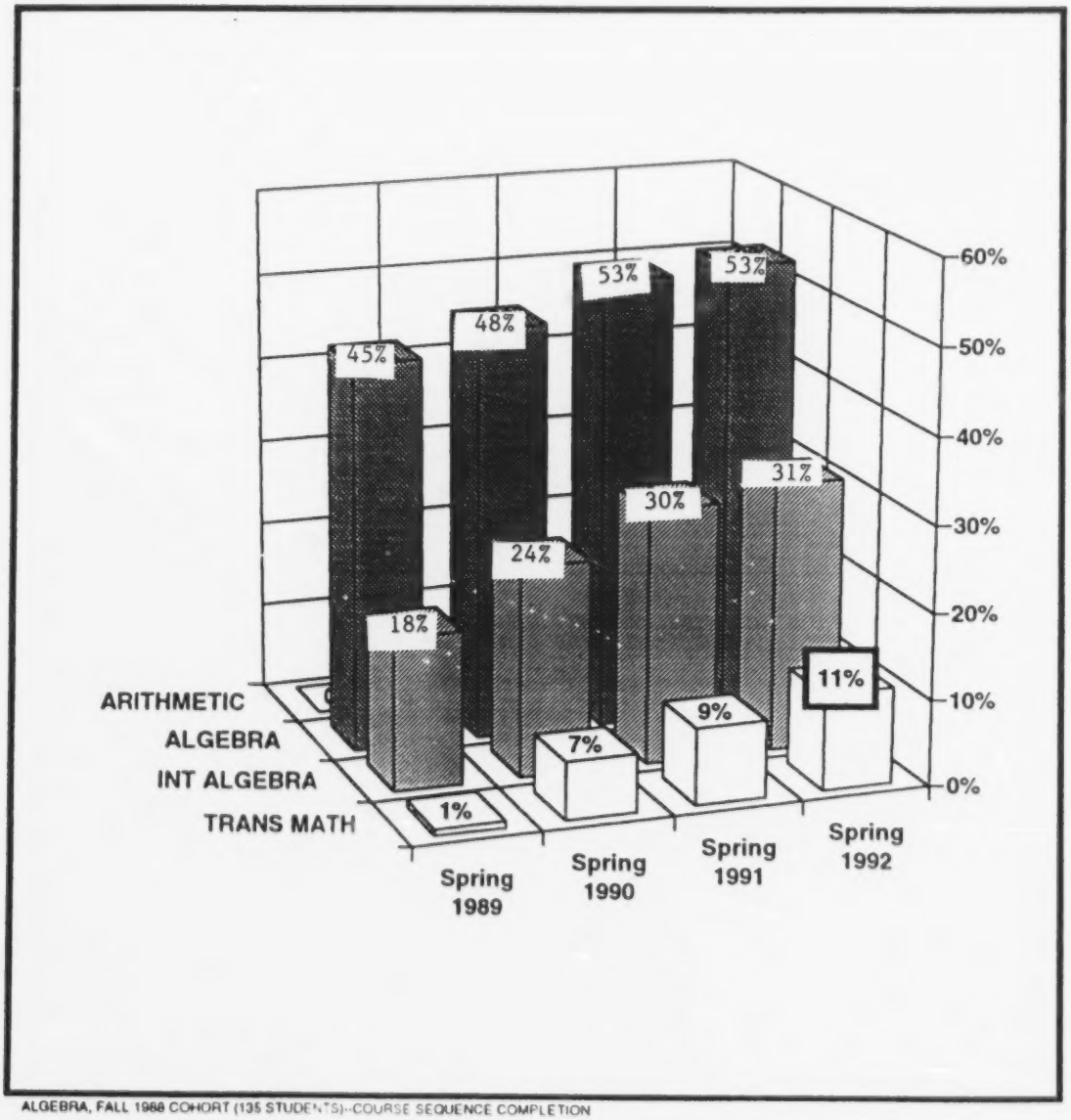
FALL 1988 - SPRING 1992					SORTED HIGH TO LOW			
ETHNIC GROUP	FALL 1988 COHORT	S92 #	S92 %		ETHNIC GROUP	FALL 1988 COHORT	S92 #	S92 %
IND M	6	0	0%		FIL M	5	1	20%
IND F	8	1	13%		PAC M	5	1	20%
FIL M	5	1	20%		IND F	8	1	13%
FIL F	5	0	0%		BLK M	12	1	8%
BLK M	12	1	8%		WHT F	23	1	4%
BLK F	22	0	0%		HSP M	32	1	3%
MID M	1	0	0%		HSP F	36	1	3%
MID F	0	0	0%		OTH M	38	0	0%
PAC M	5	1	20%		OTH F	35	0	0%
PAC F	4	0	0%		BLK F	22	0	0%
ASN M	7	0	0%		UNK M	13	0	0%
ASN F	6	0	0%		UNK F	10	0	0%
HSP M	32	1	3%		ASN M	7	0	0%
HSP F	36	1	3%		IND M	6	0	0%
WHT M	5	0	0%		ASN F	6	0	0%
WHT F	23	1	4%		FIL F	5	0	0%
OTH M	38	0	0%		WHT M	5	0	0%
OTH F	35	0	0%		PAC F	4	0	0%
DCL M	0	0	0%		MID M	1	0	0%
DCL F	0	0	0%		MID F	0	0	0%
UNK M	13	0	0%		DCL M	0	0	0%
UNK F	10	0	0%		DCL F	0	0	0%

*Percentages in this table differ from other tables in this report because this table includes Unknown and Decline to State categories.

SAN JOSE CITY COLLEGE

PERSISTENCE OF NEW COLLEGE STUDENTS
from
ALGEBRA
through
TRANSFER LEVEL MATH

FALL 1988 - SPRING 1992



ALGEBRA, FALL 1988 COHORT (135 STUDENTS)--COURSE SEQUENCE COMPLETION

Background Information

Abbreviations

Ethnic Groups

- IND = American Indian/Alaskan native
- FIL = Filipino
- BLK = Black
- MID = Middle Eastern
- PAC = Pacific Islander (Guam, Samoa, etc.)
- ASN = Asian (Chinese, Japanese, Korean, Vietnamese, etc.)
- HSP = Chicano, Latino, Mexican, Hispanic
- WHT = White, non-Hispanic
- OTH = Other non-White
- DCL = Decline to state
- UNK = Unknown

Benchmark Ethnic Groups

- ASN = ASN + FIL + PAC
- BLK = BLK
- HSP = HSP
- WHT = WHT
- OTH = OTH + IND + MID

Note: DCL & UNK are not represented in the benchmark figures.

Other Abbreviations & Definitions

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- EVC = Evergreen Valley College
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- COMPETENCY = A, B, C, or CR grade in course or equivalent course
- PERSISTENCE (PERS) = Successfully continuing to the next level after gaining competency in the previous level

Appendices

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Project Author

Dr. Jon Kangas

Data Collection

Jennifer Drino

Tony Ma

Prototype & Template Creation, Document Preparation

Katheen Budros, Program Assistant

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DATA HIGHLIGHTS

- Only 15 students, or 11%, of the 135 new students beginning in Algebra (Math 12) in Fall 1988 at SJCC progressed through Transfer Level Math between Fall 1988 and Spring 1992.

- 53% of these 135 students beginning in Math 12 achieved competency in Math 12 (Math Level 2) within four academic years, and 31% achieved competency in Intermediate Algebra (Math Level 3).

- Blacks had the highest rate of persistence at 25%, followed by Whites (22%) and Asians (21%). The actual numbers are small, however, and these percentages represent only 2, 2, and 5 students respectively.

- Only 15% of all Males and only 8% of all Females persisted through Transfer Level Math from Algebra within four academic years.

- No Black Females or Hispanic Females (out of a combined total of 20) who started in Algebra in Fall 1988 completed Transfer Level Math within four academic years.

- 93% of the original group of 135 was non-White.

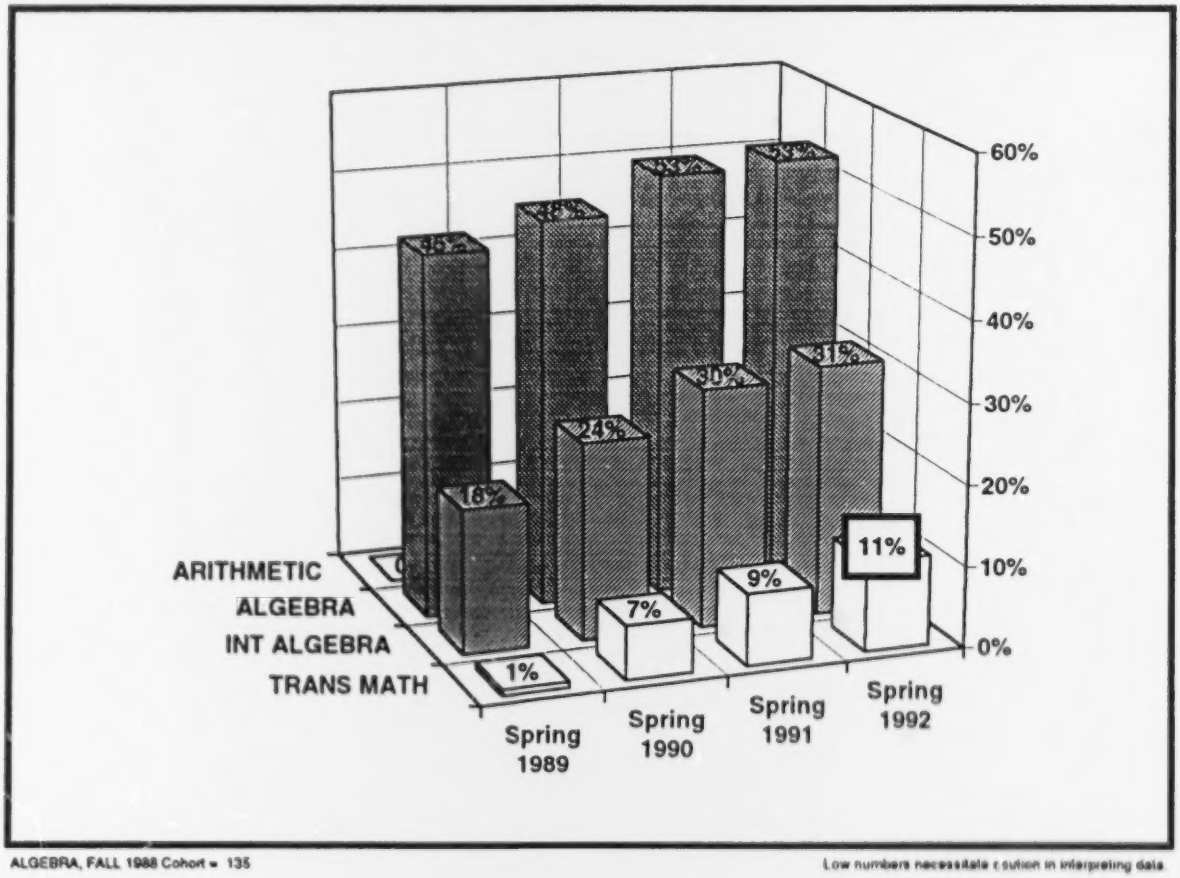
- Of the 135 students beginning in Math 12, Other (47%) comprised the largest ethnic group. Black, at 6%, comprised the smallest.

COMMENT: 93% of the Math 12 students were non-White. If one of the college's goals is to transfer more underprepared students and protected ethnic groups, this goal is not being met for the large percentage of students entering at the Algebra level.

Question: **What percentage of new college students who started in ALGEBRA at SJCC in FALL 1988 persisted through TRANSFER LEVEL MATH within four academic years?**

Cumulative Persistence from ALGEBRA through TRANSFER LEVEL MATH

		ARITHMETIC	ALGEBRA	INT ALGEBRA	TRANS MATH	
	Spring 1989	0%	45%	18%	1%	
	Spring 1990	0%	48%	24%	7%	
	Spring 1991	0%	53%	30%	9%	
	Spring 1992	0%	53%	31%	11%	



ALGEBRA, FALL 1988 Cohort = 135

Low numbers necessitate caution in interpreting data

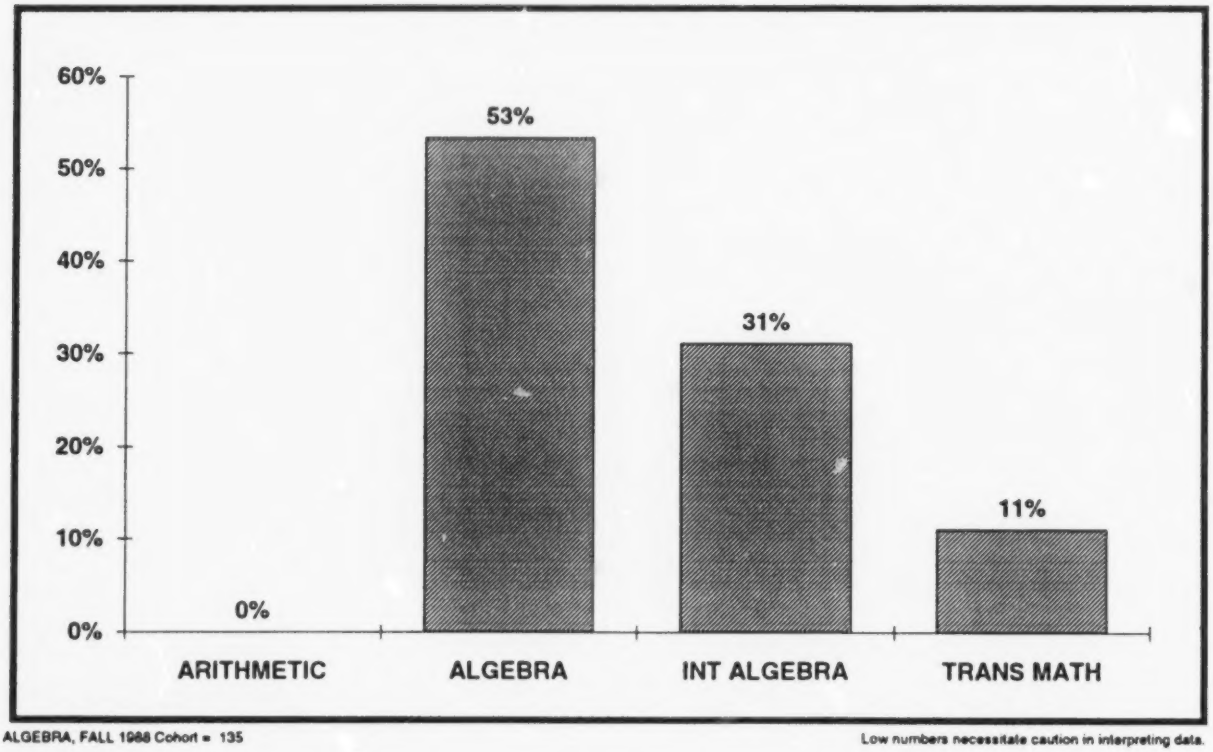
Answer: **11%** of the original FALL 1988 group persisted through Math 21 & 22, Math 25, etc. within four academic years.

Question: **What are the cumulative ALGEBRA and higher level MATHEMATICS competency rates over four academic years of new college students who started in ALGEBRA at SJCC in FALL 1988?**

Cumulative Percentage by Semester

	FALL 1988	F88	S89	Su89	F89	S90	Su90	F90	S91	Su91	F91	S92
	Cohort	%	%	%	%	%	%	%	%	%	%	%
ARITHMETIC		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
ALGEBRA	135	41%	45%	45%	47%	48%	48%	49%	53%	53%	53%	53%
INT ALGEBRA		0%	18%	19%	24%	24%	24%	25%	30%	30%	30%	31%
TRANS MATH		0%	1%	1%	4%	7%	7%	7%	9%	9%	10%	11%

CUMULATIVE COMPETENCY RATES FOR ALGEBRA AND HIGHER MATH AFTER FOUR ACADEMIC YEARS (Spring 1992)



ALGEBRA, FALL 1988 Cohort = 135

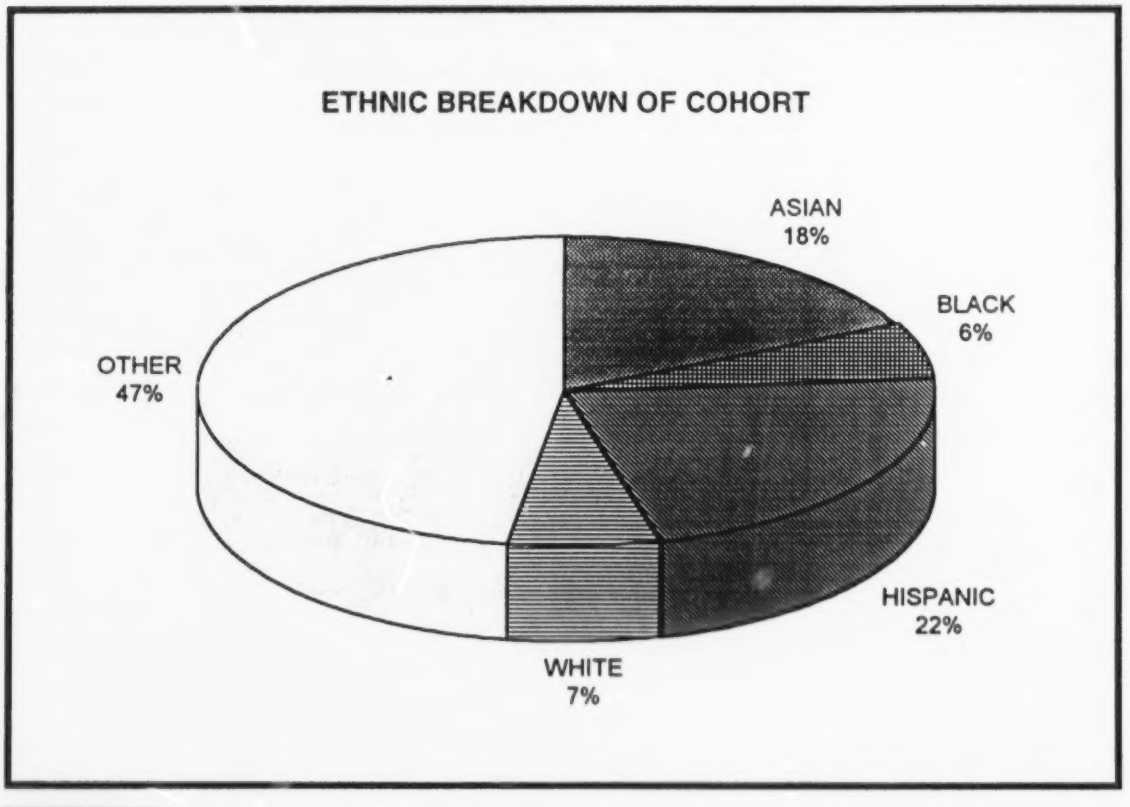
Low numbers necessitate caution in interpreting data.

Answer: After four academic years, the cumulative competency rates for new college students who began in FALL 1988 in ALGEBRA were as follows:

ARITHMETIC	0%
ALGEBRA	53%
INT ALGEBRA	31%
TRANSFER LEVEL MATH	11%

QUESTION: **What was the benchmark ethnic breakdown of new college students who started in ALGEBRA at SJCC in FALL 1988?**

FALL 1988 COHORT		
GROUP	#	%
ASIAN	24	18%
BLACK	8	6%
HISPANIC	30	22%
WHITE	9	7%
OTHER	64	47%
TOTAL	135	100%



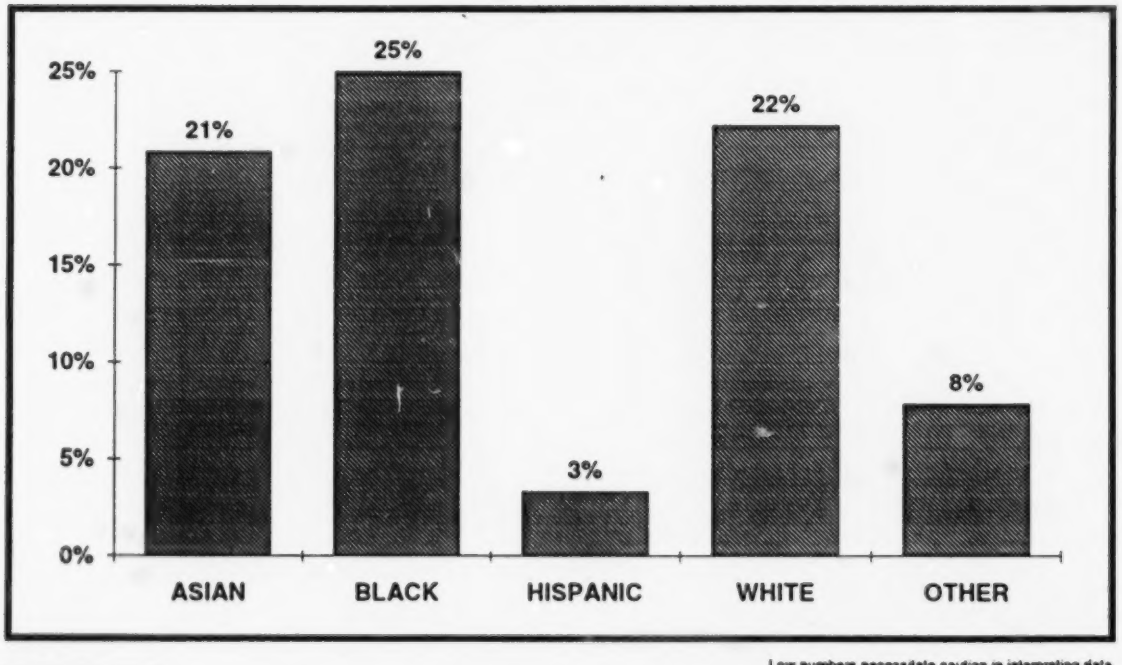
ANSWER: Proportionately largest student group(s): OTHER at 47%

Proportionately smallest student group(s): BLACK at 6%

Question: **What number and percentage of new college students, by ethnicity, who started in ALGEBRA at SJCC in FALL 1988 persisted through TRANSFER LEVEL MATH within four academic years?**

PERSISTENCE OF NEW COLLEGE STUDENTS THROUGH
TRANSFER LEVEL MATH
NUMBER AND PERCENT BY ETHNICITY
FALL 1988 - SPRING 1992

	Fall 1988 Cohort	S92 # Pers	S92 % Pers
ASIAN	24	5	21%
BLACK	8	2	25%
HISPANIC	30	1	3%
WHITE	9	2	22%
OTHER	64	5	8%
TOTAL	135	15	11%



Low numbers necessitate caution in interpreting data.

Answer:

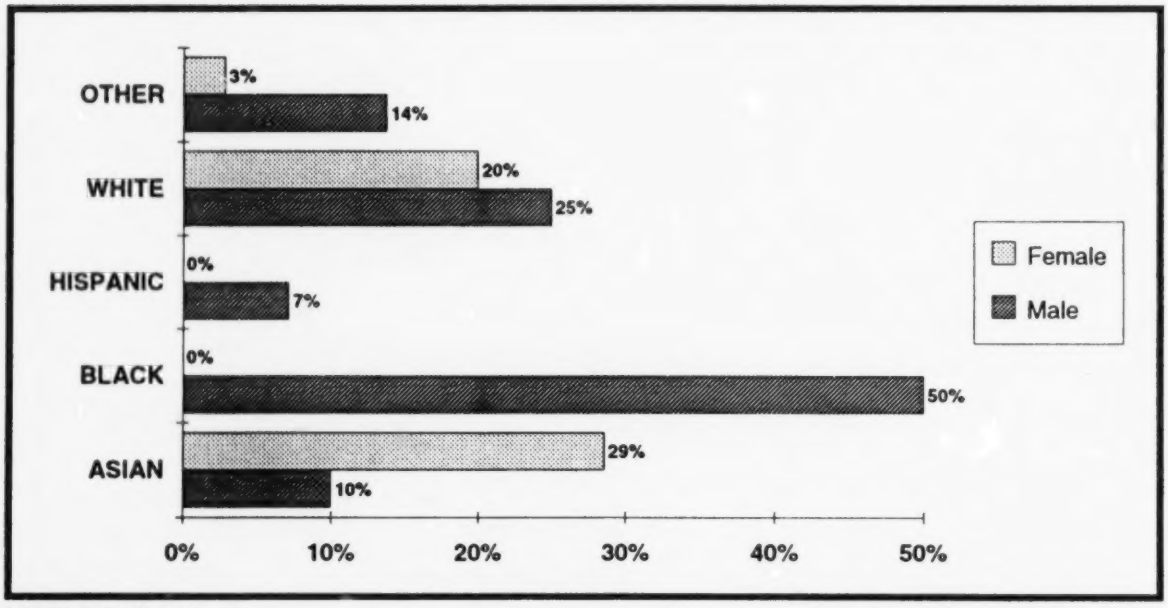
Group(s) with HIGHEST persistence rate: BLACK at 25%

Group(s) with LOWEST persistence rate: HISPANIC at 3%

Question: **What number and percentage of new college students, by ethnicity and gender, who started in ALGEBRA at SJCC in FALL 1988 persisted through TRANSFER LEVEL MATH within four academic years?**

PERSISTENCE OF NEW COLLEGE STUDENTS FROM ALGEBRA THROUGH TRANSFER LEVEL MATH
NUMBER AND PERCENT BY ETHNICITY AND GENDER
FALL 1988 - SPRING 1992

	Fall 1988 Cohort	S92 # Pers	S92 % Pers	Fall 1988 Cohort	S92 # Pers	S92 % Pers
	Male	Male	Male	Female	Female	Female
ASIAN	10	1	10%	14	4	29%
BLACK	4	2	50%	4	0	0%
HISPANIC	14	1	7%	16	0	0%
WHITE	4	1	25%	5	1	20%
OTHER	29	4	14%	35	1	3%
TOTAL	61	9	15%	74	6	8%



ALGEBRA, FALL 1988 Cohort = 135

Low numbers necessitate caution in interpreting data.

Answer:

HIGHEST RANKING GROUPS:

MALE
BLACK at 50%

FEMALE
ASIAN at 29%

LOWEST RANKING GROUPS:

MALE
HISPANIC at 7%

FEMALE
BLACK at 0%
HISPANIC at 0%

San Jose/Evergreen Community College District Longitudinal Tracking System

SAN JOSE CITY COLLEGE

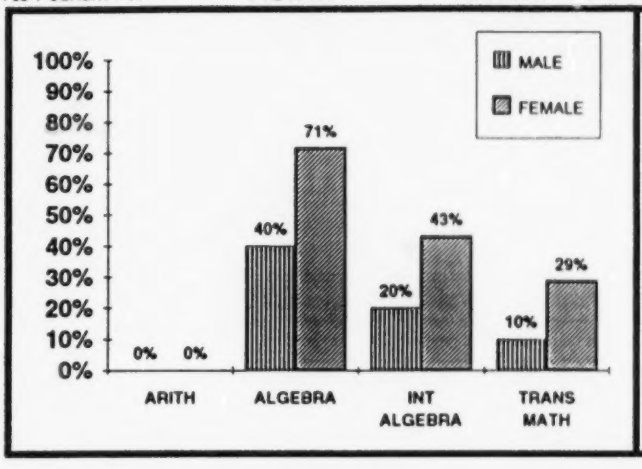
PERSISTENCE OF NEW COLLEGE STUDENTS

Students with no previous college experience who STARTED IN ALGEBRA FALL 1988

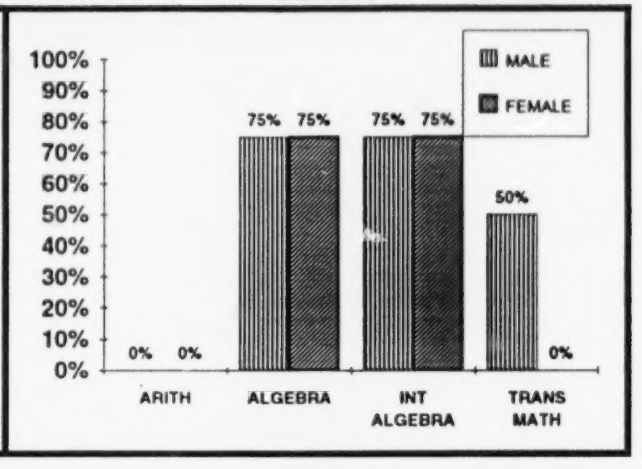
CUMULATIVE 4TH SEMESTER DATA (Spring 1992)

BY BENCHMARK ETHNICTY AND GENDER

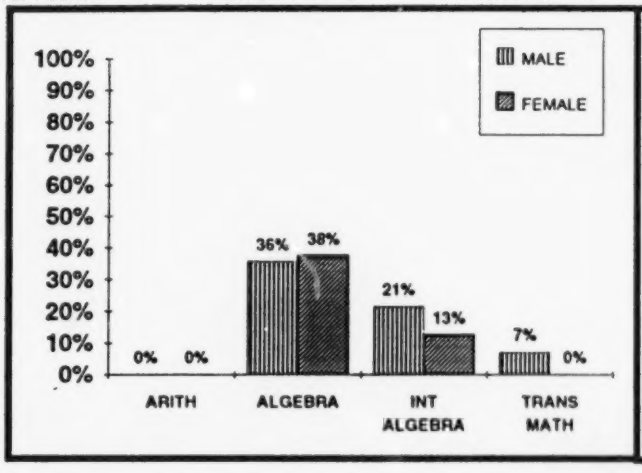
F88 F COHORT = 14 **ASIAN** F88 M COHORT = 10



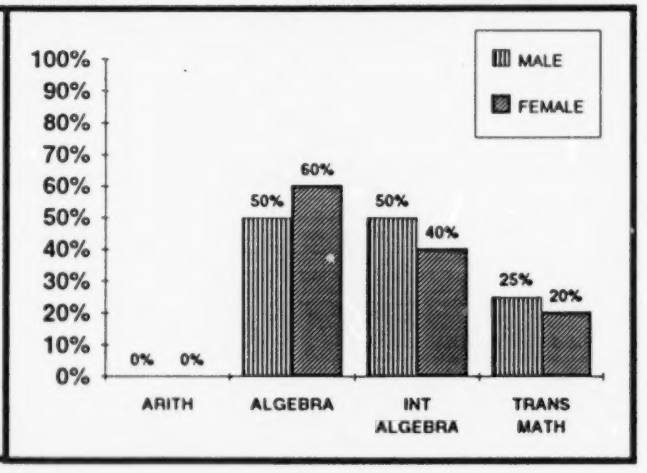
F88 F COHORT = 4 **BLACK** F88 M COHORT = 4



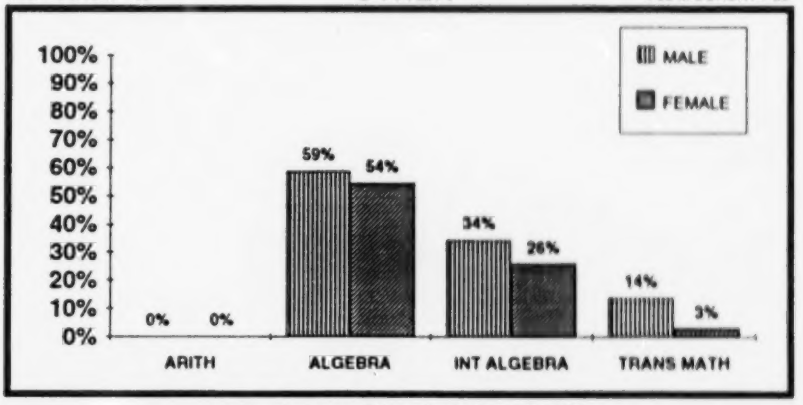
F88 F COHORT = 16 **HISPANIC** F88 M COHORT = 14



F88 F COHORT = 5 **WHITE** F88 M COHORT = 4



F88 F COHORT = 35 **OTHER** F88 M COHORT = 29



Low numbers necessitate caution in interpreting data.

SAN JOSE CITY COLLEGE

PERSISTENCE OF NEW COLLEGE STUDENTS

Students with no previous college experience who STARTED IN ALGEBRA FALL 1988

from
ALGEBRA
through
TRANSFER LEVEL MATH

SORTED FROM HIGH TO LOW

CUMULATIVE NUMBER AND PERCENT*, 4TH SEMESTER DATA

BY ETHNICITY AND GENDER

ALGEBRA, FALL 1988 Cohort = 135

Low numbers neccessitate caution in interpreting data

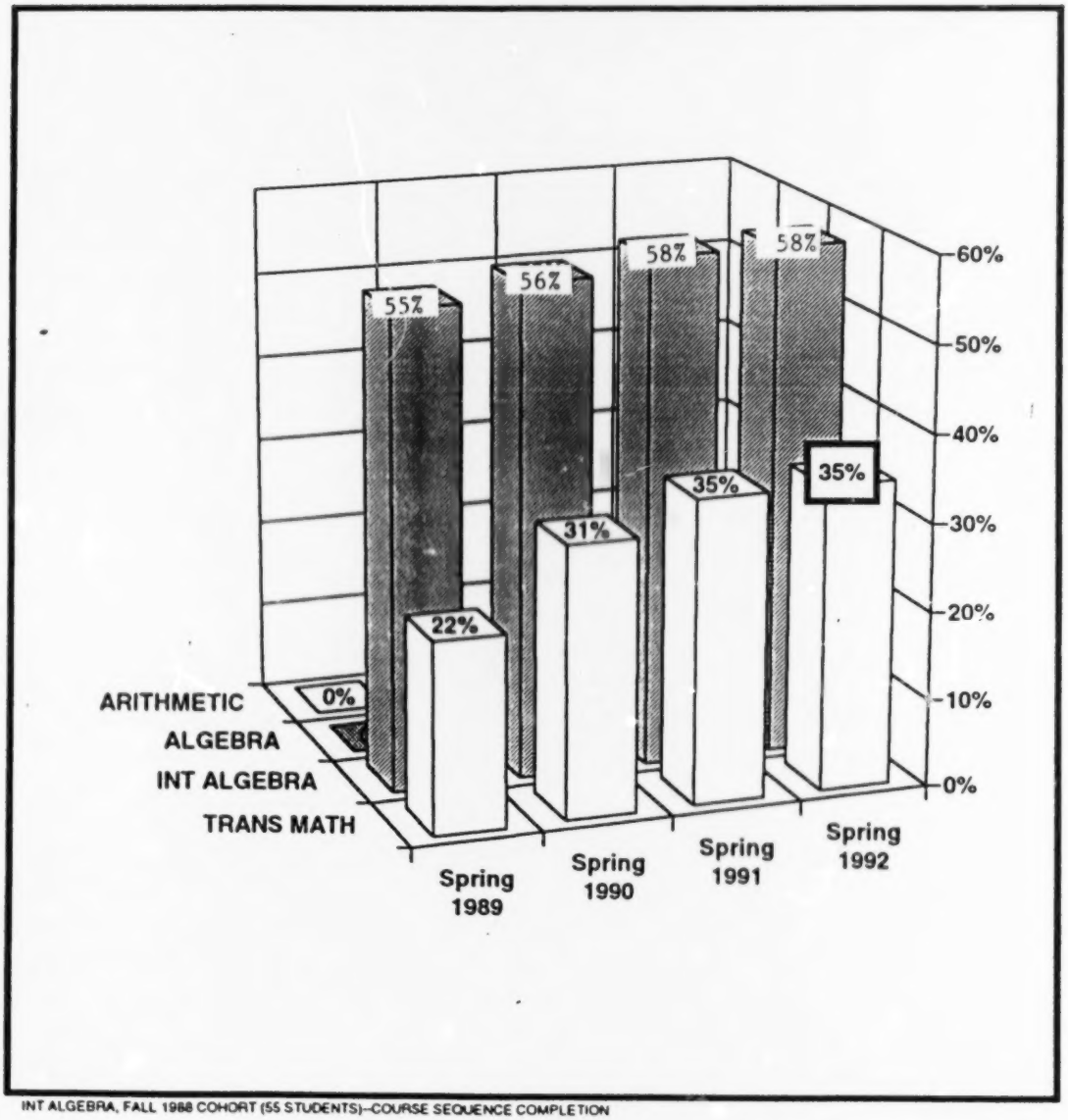
FALL 1988 - SPRING 1992					SORTED HIGH TO LOW			
ETHNIC GROUP	FALL 1988 COHORT	S92 #	S92 %		ETHNIC GROUP	FALL 1988 COHORT	S92 #	S92 %
IND M	1	0	0%		FIL F	3	2	67%
IND F	2	0	0%		BLK M	4	2	50%
FIL M	4	0	0%		ASN F	7	2	29%
FIL F	3	2	67%		WHT M	4	1	25%
BLK M	4	2	50%		WHT F	5	1	20%
BLK F	4	0	0%		UNK M	5	1	20%
MID M	0	0	0%		ASN M	6	1	17%
MID F	1	0	0%		OTH M	28	4	14%
PAC M	0	0	0%		HSP M	14	1	7%
PAC F	4	0	0%		OTH F	32	1	3%
ASN M	6	1	17%		HSP F	16	0	0%
ASN F	7	2	29%		UNK F	5	0	0%
HSP M	14	1	7%		FIL M	4	0	0%
HSP F	16	0	0%		BLK F	4	0	0%
WHT M	4	1	25%		PAC F	4	0	0%
WHT F	5	1	20%		IND F	2	0	0%
OTH M	28	4	14%		IND M	1	0	0%
OTH F	32	1	3%		MID F	1	0	0%
DCL M	0	0	0%		MID M	0	0	0%
DCL F	0	0	0%		PAC M	0	0	0%
UNK M	5	1	20%		DCL M	0	0	0%
UNK F	5	0	0%		DCL F	0	0	0%

*Percentages in this table differ from other tables in this report because this table includes Unknown and Decline to State categories.

SAN JOSE CITY COLLEGE

PERSISTENCE OF NEW COLLEGE STUDENTS
from
INT ALGEBRA
through
TRANSFER LEVEL MATH

FALL 1988 - SPRING 1992



INT ALGEBRA, FALL 1988 COHORT (55 STUDENTS)--COURSE SEQUENCE COMPLETION

Research Report #297

Background Information

Abbreviations

Ethnic Groups

IND = American Indian/Alaskan native
FIL = Filipino
BLK = Black
MID = Middle Eastern
PAC = Pacific Islander (Guam, Samoa, etc.)
ASN = Asian (Chinese, Japanese, Korean, Vietnamese, etc.)
HSP = Chicano, Latino, Mexican, Hispanic
WHT = White, non-Hispanic
OTH = Other non-White
DCL = Decline to state
UNK = Unknown

Benchmark Ethnic Groups

ASN = ASN + FIL + PAC
BLK = BLK
HSP = HSP
WHT = WHT
OTH = OTH + IND + MID

Note: DCL & UNK are not represented in the benchmark figures.

Other Abbreviations & Definitions

SJCC = San Jose City College
EVC = Evergreen Valley College
ARITHMETIC = Mathematics Level 1: Achieved by successfully completing three units of MATH 310 (Arithmetic) or equivalent course or appropriate test score
ALG = Mathematics Level 2: Achieved by successfully completing one of the following MATH classes: 11A, 11R or 12 (Algebra)
INT ALG = Mathematics Level 3: Achieved by successfully completing MATH 13 (Intermediate Algebra)
TRANS MATH = Transfer Level Math: Achieved by successfully completing one of the following MATH classes, designated as "B4" in the District Master Course Schedule (accepted for transfer by CSU): Math 21, 22, 25, 51, 52, 55, 60, 61, 62, 63, 70, 71, 72, 73, 78, 79, 81, 82
COMPETENCY = A, B, C, or CR grade in course or equivalent course
PERSISTENCE (PERS) = Successfully continuing to the next level after gaining competency in the previous level

Appendices

Detailed appendices are available upon request from the office of Academic Standards.

Funding

The prototype and template for this report were developed using Title III funds.

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Katheen Budros, Program Assistant

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DATA HIGHLIGHTS

- Nineteen students, or 35%, of the 55 new students beginning in Intermediate Algebra (Math 13) in Fall 1988 at SJCC progressed through Transfer Level Math between Fall 1988 and Spring 1992.

- 58% of these 55 students beginning in Math 13 achieved competency in Math 13 (Math Level 3) within four academic years, nearly all of them (29 of 32) during the initial semester.

- Over 25% of each ethnic group except White achieved Transfer Level Math. The vast majority (17 of 19) reached Transfer Level Math proficiency within the first two years. Hispanics had the highest rate at 67%

- Hispanic Males and Hispanic Females persisted equally at 67%.

- No White students, of the nine who started in Math 13, completed Transfer Level Math within four academic years. Low numbers in the ethnic breakdown categories make it difficult to draw meaningful conclusions related to these groups, but it may be worth examining the reasons for the 100% nonsuccess rate of White students.

- 84% of the original group of 55 was non-White.

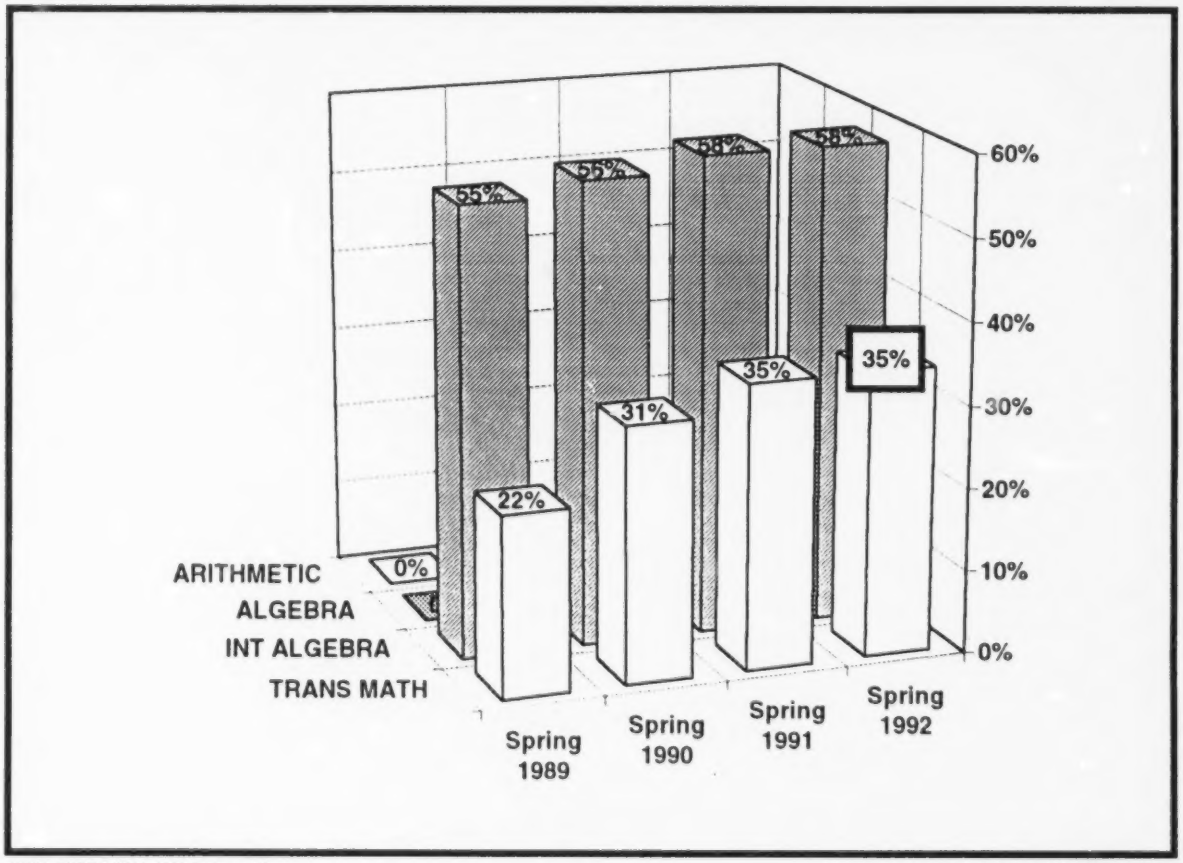
- Of the 55 students beginning in Math 13, Other (35%), Asian (22%), and Hispanic (22%) comprised the largest ethnic groups. Black, at 4%, comprised the smallest.

COMMENT: 84% of the Math 13 students were non-White. If one of the college's goals is to transfer more underprepared students and protected ethnic groups, this goal is not being met for the large percentage of students entering at the Intermediate Algebra level.

Question: **What percentage of new college students who started in INT ALGEBRA at SJCC in FALL 1988 persisted through TRANSFER LEVEL MATH within four academic years?**

Cumulative Persistence from INT ALGEBRA through TRANSFER LEVEL MATH

		ARITHMETIC	ALGEBRA	INT ALGEBRA	TRANS MATH	
	Spring 1989	0%	0%	55%	22%	
	Spring 1990	0%	0%	56%	31%	
	Spring 1991	0%	0%	58%	35%	
	Spring 1992	0%	0%	58%	35%	



INT ALGEBRA, FALL 1988 Cohort = 55

Low numbers necessitate caution in interpreting data.

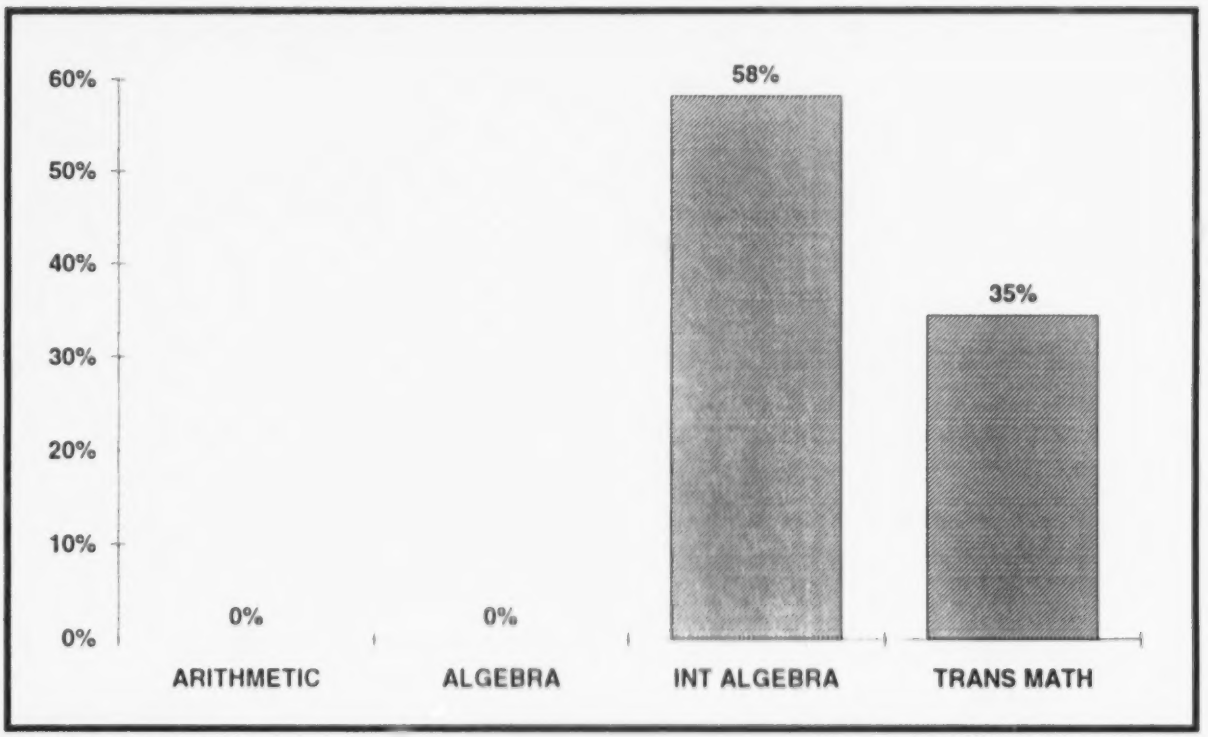
Answer: **35%** of the original FALL 1988 group persisted through TRANSFER LEVEL MATH within four academic years.

Question: **What are the cumulative INT ALGEBRA and higher level MATH competency rates over four academic years of new college students who started in INT ALGEBRA at SJCC in FALL 1988?**

Cumulative Percentage by Semester

	FALL 1988	F88	S89	Su89	F89	S90	Su90	F90	S91	Su91	F91	S92
	Cohort	%	%	%	%	%	%	%	%	%	%	%
ARITHMETIC		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
ALGEBRA		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
INT ALGEBRA	55	53%	55%	56%	56%	56%	56%	58%	58%	58%	58%	58%
TRANS MATH		0%	22%	22%	25%	31%	31%	33%	35%	35%	35%	35%

CUMULATIVE COMPETENCY RATES FOR INT ALGEBRA AND HIGHER MATH AFTER FOUR ACADEMIC YEARS (Spring 1992)



INT ALGEBRA, FALL 1988 Cohort = 55

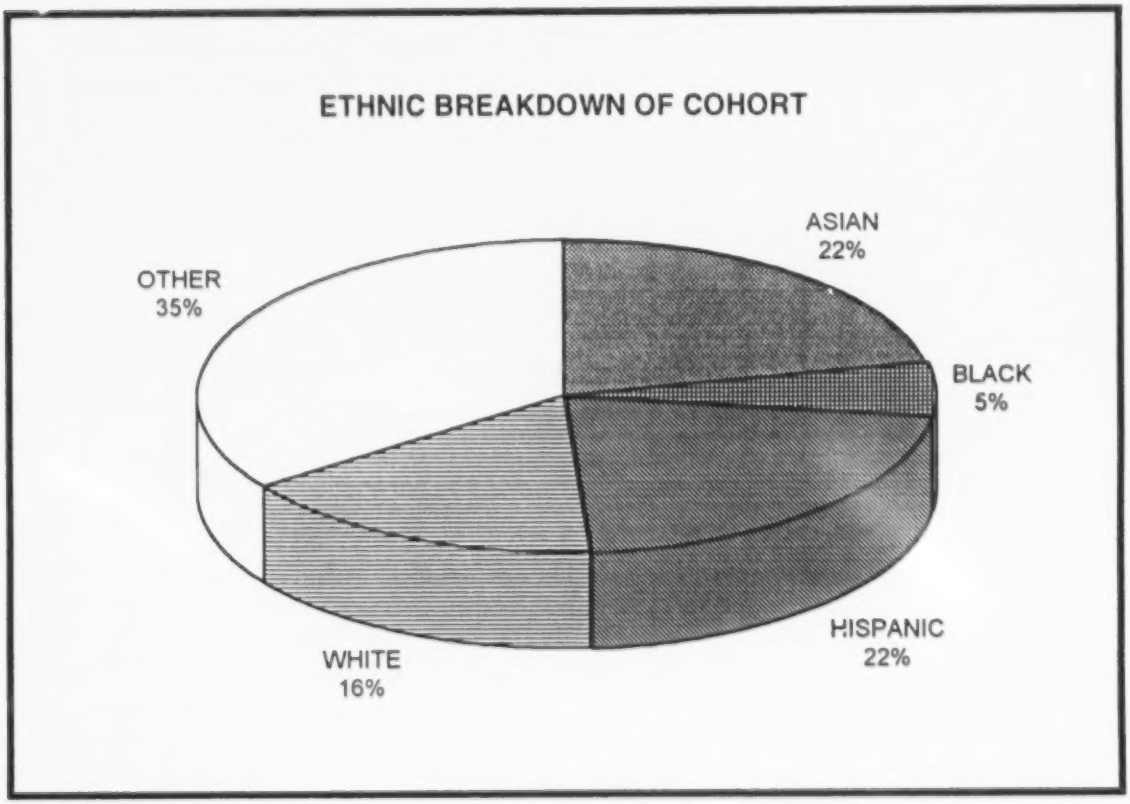
Low numbers necessitate caution in interpreting data.

Answer: After four academic years, the cumulative competency rates for new college students who began in FALL 1988 in INT ALGEBRA were as follows:

ARITHMETIC	0%
ALGEBRA	0%
INT ALGEBRA	58%
TRANSFER LEVEL MATH	35%

QUESTION: **What was the benchmark ethnic breakdown of new college students who started in INT ALGEBRA at SJCC in FALL 1988?**

FALL 1988 COHORT		
GROUP	#	%
ASIAN	12	22%
BLACK	3	5%
HISPANIC	12	22%
WHITE	9	16%
OTHER	19	35%
TOTAL	55	100%



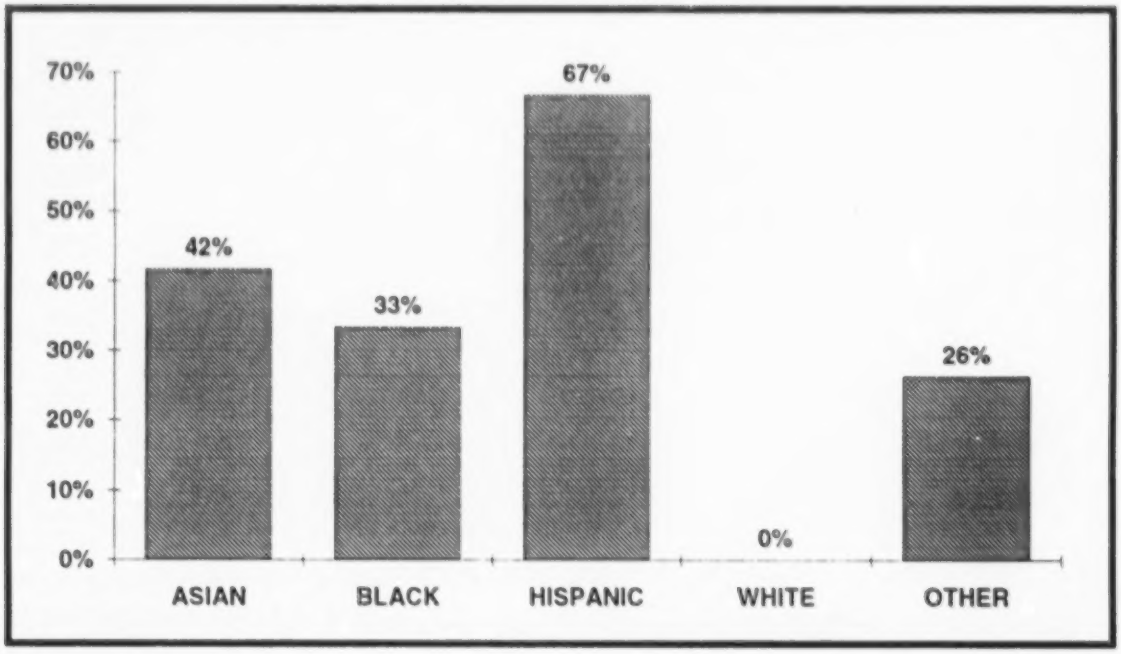
ANSWER: Proportionately largest student group(s): OTHER at 35%

Proportionately smallest student group(s): BLACK at 5%

Question: **What number and percentage of new college students, by ethnicity, who started in INT ALGEBRA at SJCC in FALL 1988 persisted through TRANSFER LEVEL MATH within four academic years?**

PERSISTENCE OF NEW COLLEGE STUDENTS THROUGH TRANSFER LEVEL MATH
NUMBER AND PERCENT BY ETHNICITY
FALL 1988 - SPRING 1992

	Fall 1988 Cohort	S92 # Pers	S92 % Pers
ASIAN	12	5	42%
BLACK	3	1	33%
HISPANIC	12	8	67%
WHITE	9	0	0%
OTHER	19	5	26%
TOTAL	55	19	35%



Low numbers necessitate caution in interpreting data.

Answer:

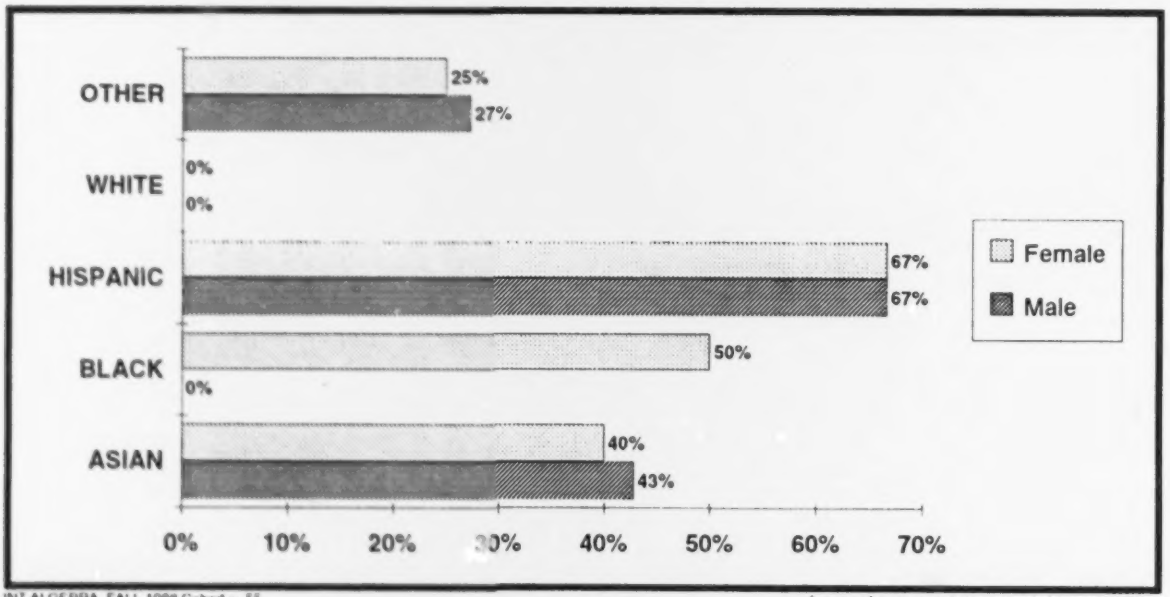
Group(s) with HIGHEST persistence rate: HISPANIC at 67%

Group(s) with LOWEST persistence rate: WHITE at 0%

Question: **What number and percentage of new college students, by ethnicity and gender, who started in INT ALGEBRA at SJCC in FALL 1988 persisted through TRANSFER LEVEL MATH within four academic years?**

PERSISTENCE OF NEW COLLEGE STUDENTS FROM INT ALGEBRA THROUGH TRANSFER LEVEL MATH
NUMBER AND PERCENT BY ETHNICITY AND GENDER
FALL 1988 - SPRING 1992

	Fall 1988 Cohort	S92 # Pers	S92 % Pers	Fall 1988 Cohort	S92 # Pers	S92 % Pers
	Male	Male	Male	Female	Female	Female
ASIAN	7	3	43%	5	2	40%
BLACK	1	0	0%	2	1	50%
HISPANIC	6	4	67%	6	4	67%
WHITE	4	0	0%	5	0	0%
OTHER	11	3	27%	8	2	25%
TOTAL	29	10	34%	26	9	35%



INT ALGEBRA, FALL 1988 Cohort = 55

Low numbers necessitate caution in interpreting data.

Answer:

HIGHEST RANKING GROUPS:

MALE

HISPANIC at 67%

FEMALE

HISPANIC at 67%

LOWEST RANKING GROUPS:

MALE

BLACK at 0%
WHITE at 0%

FEMALE

WHITE at 0%

San Jose/Evergreen Community College District Longitudinal Tracking System

SAN JOSE CITY COLLEGE

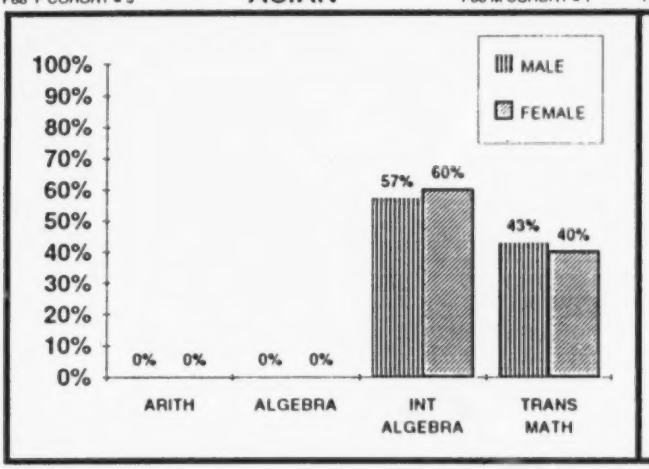
PERSISTENCE OF NEW COLLEGE STUDENTS

Students with no previous college experience who STARTED IN INT ALGEBRA FALL 1988

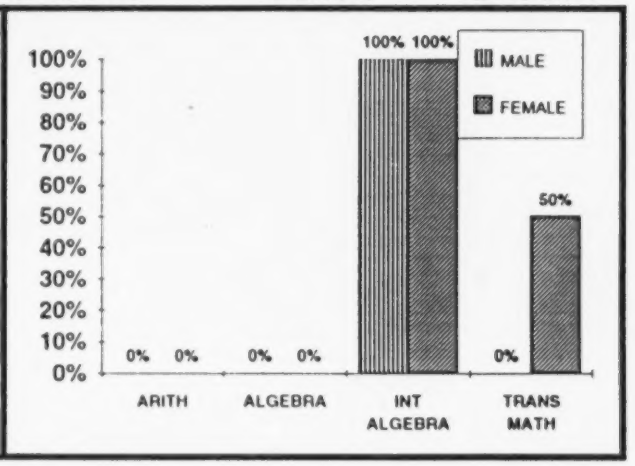
CUMULATIVE 4TH SEMESTER DATA (Spring 1992)

BY BENCHMARK ETHNICTY AND GENDER

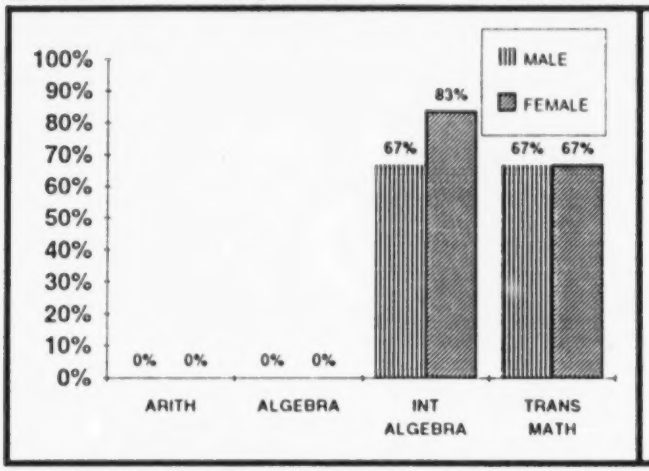
F88 F COHORT = 5 — **ASIAN** — F88 M COHORT = 7



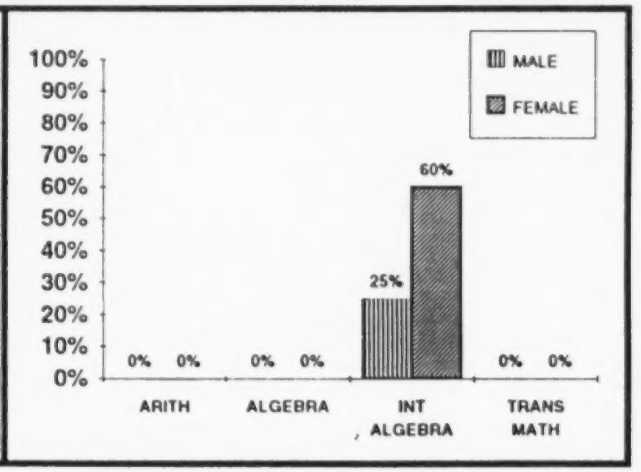
F88 F COHORT = 2 — **BLACK** — F88 M COHORT = 1



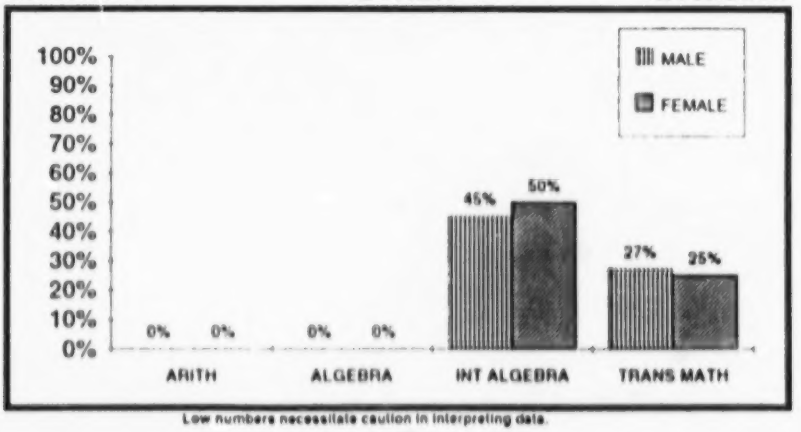
F88 F COHORT = 6 — **HISPANIC** — F88 M COHORT = 6



F88 F COHORT = 5 — **WHITE** — F88 M COHORT = 4



F88 F COHORT = 8 — **OTHER** — F88 M COHORT = 11



Low numbers necessitate caution in interpreting data.

SAN JOSE CITY COLLEGE

PERSISTENCE OF NEW COLLEGE STUDENTS

Students with no previous college experience who STARTED IN INT ALGEBRA FALL 1988

from
INT ALGEBRA
through
TRANSFER LEVEL MATH

SORTED FROM HIGH TO LOW

CUMULATIVE NUMBER AND PERCENT*, 4TH SEMESTER DATA

BY ETHNICITY AND GENDER

INT ALGEBRA, FALL 1988 Cohort = 55

Low numbers necessitate caution in interpreting data.

FALL 1988 - SPRING 1992					SORTED HIGH TO LOW			
ETHNIC GROUP	FALL 1988 COHORT	S92 #	S92 %		ETHNIC GROUP	FALL 1988 COHORT	S92 #	S92 %
IND M	0	0	0%		FIL M	1	1	100%
IND F	0	0	0%		HSP M	6	4	67%
FIL M	1	1	100%		HSP F	6	4	67%
FIL F	0	0	0%		UNK F	3	2	67%
BLK M	1	0	0%		ASN F	4	2	50%
BLK F	2	1	50%		BLK F	2	1	50%
MID M	0	0	0%		ASN M	6	2	33%
MID F	0	0	0%		OTH M	11	3	27%
PAC M	0	0	0%		OTH F	8	2	25%
PAC F	1	0	0%		WHT F	5	0	0%
ASN M	6	2	33%		WHT M	4	0	0%
ASN F	4	2	50%		UNK M	3	0	0%
HSP M	6	4	67%		BLK M	1	0	0%
HSP F	6	4	67%		PAC F	1	0	0%
WHT M	4	0	0%		IND M	0	0	0%
WHT F	5	0	0%		IND F	0	0	0%
OTH M	11	3	27%		FIL F	0	0	0%
OTH F	8	2	25%		MID M	0	0	0%
DCL M	0	0	0%		MID F	0	0	0%
DCL F	0	0	0%		PAC M	0	0	0%
UNK M	3	0	0%		DCL M	0	0	0%
UNK F	3	2	67%		DCL F	0	0	0%

*Percentages in this table differ from other tables in this report because this table includes Unknown and Decline to State categories.

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